

WHAT IS CLAIMED IS:

- 1                   1.       An EMI/RFI shield integrally formed in a thermoformable sheet,  
2 wherein portions of the thermoformable sheet are removed around a periphery of the  
3 EMI/RFI shield, wherein the portions of the thermoformable sheet that are not removed  
4 integrally connect the EMI/RFI shield to a remainder of the thermoformable sheet.
- 1                   2.       The EMI/RFI shield of claim 1 wherein the EMI/RFI shield comprises  
2 at least one layer of a conductive material.
- 1                   3.       The EMI/RFI shield of claim 2 wherein the EMI/RFI shield is multi-  
2 compartmentalized.
- 1                   4.       The EMI/RFI shield of claim 2 wherein the EMI/RFI shield defines a  
2 single compartment.
- 1                   5.       The EMI/RFI shield of claim 2 wherein the layer of conductive  
2 material comprises at least one layer of tin, aluminum, copper, and nickel.
- 1                   6.       The EMI/RFI shield of claim 5 wherein the conductive material  
2 comprises a vacuum metallized first layer of tin and an electroplated second layer of tin.
- 1                   7.       The EMI/RFI shield of claim 1 wherein the formable polymer sheet  
2 comprises a recycled, conductively coated polymer EMI/RFI shield that has been  
3 mechanically disintegrated and then recombined back into the formable polymer sheet.
- 1                   8.       The EMI/RFI shield of claim 7 where the mechanically disintegrated  
2 EMI/RFI shields comprise a metallized film comprising one of a painted film, a vacuum  
3 metallized film, and an electroless plated film.
- 1                   9.       The EMI/RFI shield of 1 wherein the EMI/RFI shield comprises a top  
2 surface, a plurality of sidewalls extending at an angle from the top surface and a flange  
3 around a periphery of the side walls, wherein the flange and the top surface define  
4 substantially parallel planes.

1 10. A reel of material for in-line processing equipment, the reel  
2 comprising:  
3 a sheet of material;  
4 a spool that receives the sheet of material; and  
5 a plurality of EMI/RFI shields attached to the sheet of material that is rolled on  
6 the spool.

1 11. The reel of material of claim 10 wherein the EMI/RFI shields are  
2 integrally attached to the sheet of material.

1 12. The reel of material of claim 11 wherein the EMI/RFI shields are  
2 attached to the sheet of material with tabs of material.

1 13. The reel of material of claim 10 wherein the EMI/RFI shields comprise  
2 at least one layer of conductive material.

1 14. The reel of material of claim 10 wherein the EMI/RFI shields and sheet  
2 of material comprise recycled material.

1 15. An EMI/RFI shield integrally attached to a formable polymer sheet  
2 formed by a method comprising:  
3 shaping the formable polymer sheet to create at least one EMI/RFI shield;  
4 applying a conductive layer to the formable polymer sheet; and  
5 removing a portion of the material around a periphery of the conductive  
6 EMI/RFI shield so as to leave the EMI/RFI shield integrally attached to a remainder of the  
7 formable polymer sheet.

1 16. The EMI/RFI shield of claim 15 wherein the shaping is carried out  
2 before the applying the conductive layer.

1 17. The EMI/RFI shield of claim 15 wherein the shaping is carried out  
2 after applying the conductive layer.

1                    18.     The EMI/RFI shield of claim 15 further comprising applying a gasket  
2     to the EMI/RFI shield.

1                    19.     The EMI/RFI shield of claim 15 comprising forming the polymer sheet  
2     from recycled material that comprises conductive material.

1                    20.     The EMI/RFI shield of claim 15 wherein removing a portion comprises  
2     leaving tabs of material that integrally connect the EMI/RFI shield to the formable polymer  
3     sheet.

1                    21.     The EMI/RFI shield of claim 5 wherein the conductive material  
2     comprises a vacuum metallized first layer of tin and an electroplated second layer of nickel.

1                    22.     The reel of material of claim 12 wherein the tabs of material are  
2     perforated.